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March 6, 2014

**NMED  
Hazardous Waste Bureau**

John Kieling, Bureau Chief  
New Mexico Environmental Department  
Hazardous Waste Bureau  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303

Re: 2014 Financial Assurance Cost Estimate  
Western Refining Southwest, Inc. – Gallup Refinery  
EPA ID# NMD000333211

Dear Mr. Kieling:

Western Refining Southwest, Inc. – Gallup Refinery submits the referenced Financial Assurance Cost Estimate. The estimate was prepared for Western by RPS, a third party environmental engineering company. This cost estimate includes costs to address post-closure care of the Land Treatment Unit (LTU) pursuant to the Post-Closure Care Permit dated August 2000 and activities specified in the Complaint and Consent Agreement and Final Order dated August 26, 2009 for implementation of a remedy for Aeration lagoons AL-1 and AL-2. The cost estimate includes costs to address the requirements of the recently issued RCRA Post-Closure Permit (“RCRA Permit”) (effective date 12/2/2013). The initial cost estimates were prepared in accordance with 40 CFR 264.101 and substantially in compliance with the requirements of 40 CFR 264.142 and 264.144.

If you have any questions or would like to discuss the Financial Assurance Cost Estimate, please contact me at (505) 722-0217.

#### Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and

March 6, 2014

belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

A handwritten signature in black ink that reads "William Carl McClain Jr." in a cursive script.

William C. McClain Jr.  
Refinery Manager  
Western Refining Southwest, Inc. – Gallup Refinery

cc: Ed Riege  
Allen Hains



Cielo Center, 1250 South Capital of Texas Highway, Building Three, Suite 200, Austin, Texas 78746, USA  
T +1 512 347 7588 F +1 512 347 8243 W www.rpsgroup.com

February 27, 2014

Mr. Ed Riege  
Environmental Manager  
Western Refining Southwest, Inc.  
Route 3 Box 7  
Gallup, NM 87301

Re: Western Refining Southwest, Inc. - Gallup Refinery  
Financial Assurance Cost Estimate

Dear Mr. Riege:

This cost estimate includes costs to address those activities specified in the Complaint and Consent Agreement and Final Order (CAFO) (dated August 26, 2009) for implementation of a remedy for Aeration Lagoons AL-1 and AL-2 and the requirements of the recently issued RCRA Post-Closure Permit ("RCRA Permit") (effective date 12/2/2013). The initial cost estimates were prepared in accordance with 40 CFR 264.101 and substantially in compliance with the requirements of 40 CFR 264.142 and 264.144.

The original 2009 cost estimate for the Aeration Lagoons (\$1,257,000) has been adjusted annually for inflation each year. The most recent update was conducted in February 2013 with an inflation adjusted estimate of \$1,318,780. The 2013 estimate of \$1,318,780 was multiplied by an annual inflation factor of 1.4% [Implicit Price Deflator (IPD), as taken from the Bureau of Economic Analysis' Table 1.1.9, for 2013 / IPD for 2012 (updated 1/30/2014) = 107.121/105.667 = 1.4%] to yield a 2014 updated estimate of \$1,337,243.

There are two separate provisions in the new RCRA Permit, which require cost estimates. The first of which is Provision II.D.1 that specifies, "*The Permittee shall adjust the post-closure estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument used to comply with 40 CFR § 264.145.*" This provision addresses post-closure care of the Land Treatment Unit (LTU).

A revised cost estimate for post-closure care of the LTU was prepared in 2010, reflecting the significant amount of work that had been completed since issuance of the previous RCRA Post-Closure Permit in 2000. The estimated cost in 2010 was \$125,185 (see enclosed Table 1B) and it has been adjusted annually since. The most recent annual adjustment prepared in February 2013 produced an updated cost of \$130,088. Applying an annual inflation factor of 1.4 %, the 2013 estimate of \$130,088 is adjusted to \$131,909 to yield an updated estimate for 2014.

The second provision in the new RCRA Permit that requires a cost estimate is Provision II.D.2, which states in part, "*Within 180 days of the effective date of this Permit, the Permittee shall submit to the NMED for approval a detailed written estimate, in current dollars, of the cost of hiring a third party to perform a cleanup of contaminant releases at or migrating from the Facility in accordance with this Permit (hereafter "Estimated Cost of the Work"). The initial Estimated Cost of the Work shall account for the total costs of post-closure care and monitoring the Land*

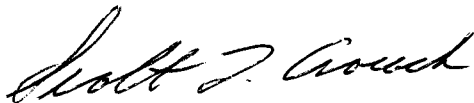
Mr. Ed Riege  
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*Treatment Unit and conducting the Facility Wide Groundwater Monitoring for a period of 20 years.*” At this time, no remedies have been selected by the New Mexico Department of Environment (NMED) that require financial assurance. The costs to address post-closure care and monitoring at the LTU are already addressed above. The only activity that requires a cost estimate at this time under Provision II.D.2 is conducting the facility-wide groundwater monitoring for a period of 20 years. Table 1A provides a detailed explanation of the annual cost of implementing facility-wide groundwater monitoring on an annual basis. For a period of 20 years, the estimated cost is \$1,762,340.

The current total estimated cost is \$3,231,492 for addressing the Aeration Lagoons pursuant to the CAFO and implementation of the new RCRA Post-Closure Permit. If there are any questions, please contact me at (512) 347-7588.

Sincerely,

**RPS**



Scott T. Crouch, P.G.  
Senior Consultant

STC/cks

Enclosure

cc: Allen Hains – Western Refining El Paso

TABLE 1  
 FEBRUARY 2014 COST ESTIMATE FOR RCRA POST-CLOSURE ORDER  
 WESTERN REFINING SOUTHWEST, INC. - GALLUP REFINERY

Waste Management Area	Corrective Action/Project	Investigation Costs	Remediation Costs	O&M Costs	Total Costs	Notes
<b>RCRA Regulated Units</b>						
Land Treatment Unit	Ground Water & Soil Monitoring	\$0	\$0	\$131,909	\$131,909	Post-closure care for LTU
<b>Solid Waste Management Units (SWMU's)</b>						
SWMU 1 – Aeration Basin	Soil investigation & potential remediation	\$0	\$0	\$0	\$0	remediation cost estimate developed Nov. 2009 pursuant to EPA CAFO; adjusted for inflation through 4th Qtr 2012
SWMU 2 - Evaporation Ponds	IWP due 1/31/2021	\$0	\$0	\$0	\$0	
SWMU 3 – Empty Container Storage Area/Bundle Cleaning Pad	IWP due 3/1/2014	\$0	\$0	\$0	\$0	
SWMU 4 – Old Burn Pit	IWP due 6/30/2014	\$0	\$0	\$0	\$0	already capped
SWMU 5 – Landfill Areas	IWP due 9/30/2014	\$0	\$0	\$0	\$0	already capped
SWMU 6 – Tank Farm	IWP due 12/31/2019	\$0	\$0	\$0	\$0	Phase-Separate Hydrocarbon (PSH) recovery is conducted once a quarter at three wells & a small passive bioventing system is present, but the operations costs are minimal and no timeframe for operation is specified. No additional O&M costs are included as these actions would be conducted during other routine monitoring events.
SWMU 7 – Fire Training Area	IWP due 3/31/2015	\$0	\$0	\$0	\$0	already capped

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 WESTERN REFINING SOUTHWEST, INC. - GALLUP REFINERY

Waste Management Area	Corrective Action/Project	Investigation Costs	Remediation Costs	O&M Costs	Total Costs	Notes
SWMU 8 – Railroad Rack Lagoon, ditch & fan area	NFA Petition	\$0	\$0	\$0	\$0	Remediation completed and reports approved by NMED; only NFA petition and permit mod remains to be completed.
SWMU 9 – Drainage Ditch Near Inactive Landfarm	IWP due 6/30/2015	\$0	\$0	\$0	\$0	
SWMU 10 – Sludge Pits	IWP due 9/20/2014	\$0	\$0	\$0	\$0	
SWMU 11 – Secondary Oil Skimmer	IWP due 12/31/2015	\$0	\$0	\$0	\$0	
SWMU 12 – Contact Wastewater Collection System <sup>5</sup>	IWP due 3/31/2016	\$0	\$0	\$0	\$0	0
SWMU 13 – Drainage Ditch between N & S Evaporation	IWP due 6/30/2016	\$0	\$0	\$0	\$0	
SWMU 14 – API Separator	Soil investigation & potential remediation	\$0		\$0	\$0	
AOC 15 (NAPIS)	IWP due 9/30/2016	\$0	\$0	\$0		
& AOC 16 (NAPIS Overflow Tanks) IWP	IWP due 9/30/2016	\$0	\$0	\$0	\$0	
AOC 17 (Railroad Loading/Unloading Facility) RA	Release Assessment due 12/31/2016	\$0	\$0	\$0	\$0	
AOC 18 (Asphalt Tank Farm) IWP	IWP due 6/30/2017	\$0	\$0	\$0	\$0	

TABLE 1  
 FEBRUARY 2014 COST ESTIMATE FOR RCRA POST-CLOSURE ORDER  
 WESTERN REFINING SOUTHWEST, INC. - GALLUP REFINERY

Waste Management Area	Corrective Action/Project	Investigation Costs	Remediation Costs	O&M Costs	Total Costs	Notes
AOC 19 (East Fuel Oil Loading Rack) RA	RA due 6/30/2017	\$0	\$0	\$0	\$0	
AOC 20 (Crude Slop & Ethanol Unloading Facility) RA	RA due 9/30/2017	\$0	\$0	\$0	\$0	
AOC 21 (Mail Loading Racks) RA	RA due 12/31/2017	\$0	\$0	\$0	\$0	
AOC 22 (Loading Rack Additive Tank Farm) IWP	IWP due 3/31/2018	\$0	\$0	\$0	\$0	
AOC 23 (Retail Fuel Tank Farm) IWP	IWP due 3/31/2018	\$0	\$0	\$0	\$0	
AOC 24 (Crude Oil Tank Farm) IWP	IWP due 6/30/2018	\$0	\$0	\$0	\$0	
AOC 25 (Tank 573) RA	RA due 12/31/2016	\$0	\$0	\$0	\$0	
AOC 26 (Process Units) RA	RA due 4/30/2021	\$0	\$0	\$0	\$0	
AOC 27 (Boiler & Cooling Unit Area) RA	RA due 9/30/2018	\$0	\$0	\$0	\$0	
AOC 28 (Warehouse & Maintenance Shop Area) RA	RA due 12/31/2018	\$0	\$0	\$0	\$0	
AOC 29 (Equip. Yard & Drum Storage Area) RA	RA due 3/31/2019	\$0	\$0	\$0	\$0	
AOC 30 (Laboratory) RA	RA due 6/30/2019	\$0	\$0	\$0	\$0	
AOC 31 (Tank 27 & 28) IWP	IWP due 9/30/2019	\$0	\$0	\$0	\$0	
AOC 32 (Flare & Ancillary Tanks) IWP	IWP due 12/31/2019	\$0	\$0	\$0	\$0	

TABLE 1  
 FEBRUARY 2014 COST ESTIMATE FOR RCRA POST-CLOSURE ORDER  
 WESTERN REFINING SOUTHWEST, INC. - GALLUP REFINERY

Waste Management Area	Corrective Action/Project	Investigation Costs	Remediation Costs	O&M Costs	Total Costs	Notes
AOC 33 (Storm Water Collection System) IWP	IWP due 3/31/2020	\$0	\$0	\$0	\$0	
AOC 34 (Scrap Yard) IWP	IWP due 6/30/2020	\$0	\$0	\$0	\$0	
<b>Groundwater</b>						
Site-wide	Facility-Wide Groundwater Monitoring	\$0	\$0	\$0	\$1,762,340	Assumes \$88,117/yr for 20 years, see Table A
<b>Other Costs</b>						
<b>Total Estimated Costs</b>		\$0	\$0	\$131,909	\$1,894,249	



**TABLE 1A**  
**Facility-Wide Groundwater Monitoring Annual Cost Estimate**  
**Western Refining Southwest, Inc. - Gallup Refinery**

Analysis	Frequency	# of Sample Locations	# of Samples <sup>1</sup>	Cost/Sample	Cost per Year
<b>Quarterly Sampling Events<sup>2</sup></b>					
8260B	Quarterly	11	68	\$120	\$8,160
8021	Quarterly	4	16	\$115	\$1,840
8015B (GRO, DRO)	Quarterly	11	52	\$100	\$5,200
8270C	Quarterly	6	32	\$300	\$9,600
Cations/Anions -General Chemistry	Quarterly	11	52	\$165	\$8,580
WQCC Metals	Quarterly	11	52	\$225	\$11,700
Filters			44	\$12	\$528
Level 4 Data Packet				15% of analysis	\$6,762
subtotal					\$52,370
<b>Annual Sampling Events<sup>3</sup></b>					
8260B	Annual	22	24	\$120	\$2,880
8015B (GRO, DRO)	Annual	6	8	\$100	\$800
8270C	Annual	16	18	\$300	\$5,400
Cations/Anions	Annual	17	19	\$165	\$3,135
WQCC Metals	Annual	22	24	\$225	\$5,400
Cyanide, Nitrates	Annual	1	3	\$70	\$210
Filters	Annual		22	\$12	\$264
Level 4 Data Packet	Annual			15% of analysis	\$2,674
subtotal					\$20,763
<b>Three-Year Sampling Events<sup>4</sup></b>					
8260B	Every third year	2	0.7	\$120	\$84
8270C	Every third year	2	0.7	\$300	\$210
WQCC Metals	Every third year	2	0.7	\$225	\$158
Cyanide, Nitrates	Every third year	2	0.7	\$70	\$49
Filters	Every third year		0.7	\$12	\$8
Level 4 Data Packet	Every third year			15% of analysis	\$75
subtotal					\$584
Sampling Labor	Three quarterly events		15 Days of 8 hour days	\$72/hour	\$8,640
	Combined annual, one quarterly & three-year event		10 Days of 8 hour days	\$72/hour	\$5,760
subtotal					\$14,400
Annual Total					\$88,117

Sampling conducted pursuant to August 2010 Facility-Wide Groundwater Monitoring Plan

1 - # of Samples includes additional QA/QC samples and is adjusted based on the number of annual samples

2 - The wells included in the quarterly monitoring events include GWM-1, GWM-2, GWM-3, NAPIS-1, NAPIS-2, NAPIS-3, KA-3, OW-1, OW-10, OW-13, OW-14, OW-29, OW-30, OW-50, and OW-52

3 - The wells included for annual sampling include BW-1A, BW-1B, BW-1C, BW-2A, BW-2B, BW-2C, BW-3A, BW-3B, BW-3C, MW-1, MW-2, MW-4, MW-5, OW-11, OW-12, RW-1, RW-2, RW-5, RW-6, SMW-2, SMW-4, and PW-3

4 - Three-year sampling event locations are PW-2 and PW-4.

**TABLE 1B**  
**Land Treatment Unit Detailed Cost Estimate**  
**Western Refining Southwest, Inc. - Gallup Refinery**

Activity	Cost Estimate in 2000 Part B Permit Application			Updated 2010 Cost Estimate				
	Material	Cost Frequency (over 30 years)	Estimated Cost	Material	Cost Frequency (remaining 20 years)	Revised Costs	Inflation Adjustment <sup>3</sup>	2010 Estimated Costs
<b>MONITORING</b>								
Sample by Zone								
ZOI	4 samples at \$1,450	3	\$17,400	4 samples at \$709 <sup>1</sup>	2	\$5,672	0	\$5,672
Treatment Zone	4 samples at \$1,450	3	\$17,400	4 samples at \$709 <sup>1</sup>	2	\$5,672	0	\$5,672
Chinle Slope Wash	1 sample at \$1,650	8	\$13,200	1 sample at \$834 <sup>2</sup>	2	\$1,668	0	\$1,668
Sonsela	4 samples at \$1,650	8	\$52,800	4 samples at \$834 <sup>2</sup>	2	\$6,672	0	\$6,672
Sample QC	25% of \$100,800		\$25,200	25% of \$19,684		\$4,921	0	\$4,921
Mobilization/labor								
ZOI & Treatment Zone	3 events at \$1,000/event		\$3,000	2 events at \$1,000/event		\$2,000	\$500.80	\$2,501
Chinle Slope Wash & Sonsela	8 events at \$2,000/event		\$16,000	2 events at \$2,000/event		\$4,000	\$1,001.60	\$5,002
<b>COVER ESTABLISHMENT</b>								
Filed Technician	\$10,000		\$10,000	completed		\$0		\$0
Microtox	\$300 per test	9	\$2,700	completed		\$0		\$0
Soil Amendments	352,000 ft <sup>2</sup> at 0.02/ft <sup>2</sup>		\$7,040	completed		\$0		\$0
Establish Vegetative Cover								
Top Soil	7.8 acres at \$2,000/acre		\$15,600	completed		\$0		\$0
Level LTU	7.8 acres at \$950/acre		\$7,410	completed		\$0		\$0
Plant Seed	7.8 acres at \$750/acre		\$5,850	completed		\$0		\$0
Water	1140 Mgal. At \$1/Mgal		\$1,140	completed		\$0		\$0
<b>Routine Inspection, Maintenance &amp; Repair</b>								
Site Inspection	Weekly inspection		\$6,000	Weekly inspection (remaining 20 years)		\$4,000	\$1,001.60	\$5,002
Security Device	\$100 annually		\$3,000	\$100 annually		\$2,000	\$500.80	\$2,501
Runon/Runoff	\$1,000 annually to maintain perimeter berm		\$30,000	\$1,000 annually to maintain perimeter berm		\$20,000	\$5,008.00	\$25,008
<b>Prepare Certification</b>								
Certify LTU Closure	120 hours at \$125/hour		\$15,000	120 hours at \$125/hour		\$15,000	\$3,756.00	\$18,756
Notice in Deed	6 hours at \$150/hour		\$900	6 hours at \$150/hour		\$900	\$225.36	\$1,125
Certify Final Closure	120 hours at \$125/hour		\$15,000	120 hours at \$125/hour		\$15,000	\$3,756.00	\$18,756
Notice in Deed	6 hours at \$150/hour		\$900	6 hours at \$150/hour		\$900	\$225.36	\$1,125
Total Task			\$265,540					\$104,381
Gallup Overhead		10%	\$26,554					\$10,402
Contingency		10%	\$26,554					\$10,402
<b>TOTAL</b>			<b>\$371,756</b>					<b>\$125,185</b>

Mgal. = million gallons

ZOI = Zone of Incorporation

1 - 8260 @ \$120, 8270 @ \$280, 8015 @ \$80, metals @ \$229

2 - 8260 @ \$120, 8270 @ \$280, 8015 @ \$80, metals @ \$229, pH @ \$35, cation/anions @ \$90

3- Inflation adjustment for costs in the original 2000 estimate. Annual inflation adjustment for years 2001 through 2010 based on implicit price deflator of US Gross National Product of most recent year divided by previous year; 2001=2.06%, 2002=2.17%, 2003=1.3%, 2004=1.67%, 2005=2.37%, 2006=3.03%, 2007=2.94%, 2008=3.95%, 2009=2.18%, 2010=0.96%; cumulative adjustment of 25.04%